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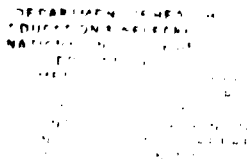
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## ABSTRACT

This study focused on two methodological issues by testing for discriminant validity in a multitrait-multimethod matrix which contrasted the set of estimates obtained from two methods and the "regression weights" derived from each subject's estimates from the second method. In order to change the conceptions of social behavior held by persons from different cultural backgrounds, it is necessary to be able to measure the similarity of such conceptions, or attributions. A method for quantifying attributions requires that values be assigned to five weights incorporated in an equation. This raises the question of how to obtain good estimates of these weights. A direct method is to simply ask subjects to estimate the weight of each predictor in the equations. A second method of measurement is to have the subject estimate the perceived relationship among all possible pairs of variables in each equation. This is tantamount to asking the subjects to estimate directly the correlation coefficient between all pairs of variables in the equation. The question as to whether the subjective correlations estimate fails to mirror processes actually used by the subjects can only be answered empirically. If the two methods produce different types of estimates, they may not yield similar interpretations of the subject's conceptions. (Author/JM)

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Illinois Studies of the Economically Disadvantaged

A METHODOLOGICAL STUDY OF CONCEPTIONS

OF SOCIAL BEHAVIOR

David E. Weldon, A. Kent Rissman and Harry C. Triandis

University of Illinois

Technical Report No. 21

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## Preface

This report is part of a series which is concerned with the economically disadvantaged. We have shown in previous reports that economic disadvantages create characteristic ways of perceiving and thinking about the social environment. These ways differ from the way the mainstream views the world, and create barriers to cooperation between a disadvantaged employee and his supervisor. Such barriers make it difficult for the employee to hold a job.

The culture assimilator is a training procedure designed to explain to members of one culture how members of another culture view the world. It is hoped that such training will improve the chances of an economically disadvantaged employee to work with a boss from the mainstream.

In order to test the effects of culture assimilator training we need to develop procedures that are specially designed to measure those cognitive changes that are most likely to occur as a result of such training. In the present report we describe a methodological study which explores the optimal way of measuring the attributions of causal behavior made by our subjects. These attributions are theoretically the changes in "thinking about the other cultural group" which are most likely to occur as a result of culture assimilator training. It is thus important to get a good measure of them. The present report shows that both procedures we tried have adequate reliability and validity, and provide highly sensitive data that are quite meaningful. However, one of the two procedures is slightly superior to the other and should be used in future research.

H. C. Triandis

A METHODOLOGICAL STUDY OF CONCEPTIONS  
OF SOCIAL BEHAVIOR

David E. Weldon, A. Kent Rissman and Harry C. Triandis  
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Abstract

The attributions that subjects made concerning the behavior of another person were studied. Measurement was based on a model of social behavior, according to which behavior is a function of habits, behavioral intentions and facilitating conditions, and behavioral intentions are a function of social influences, the affect attached to the behavior itself, and the value of the perceived consequences of this behavior. Two methods of measurement of these attributions were employed. One required the subject to distribute 10 points among two predictors of behavior and again 10 points among three predictors of behavioral intentions. The other required the subject to estimate the correlation among all the variables of the model, for a particular observation of a behavior in a social situation. A Campbell-Fiske multimethod-multitrait analysis was used. A criterion of internal consistency of the judgments rejected 29 subjects; the remaining 59 behaved consistently. The consistent subjects gave multimethod and multitrait matrices that met all Campbell-Fiske criteria, while the inconsistent subjects met only some of the criteria. It is concluded that both methods of measurement are satisfactory; however, the estimation of correlations method has the advantage that it supplies non-interdependent scores for each of the attributions and should be used in future research.

A METHODOLOGICAL STUDY OF CONCEPTIONS  
OF SOCIAL BEHAVIOR<sup>1</sup>

David E. Weldon<sup>2</sup>, A. Kent Rissman and Harry C. Triandis

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Triandis and Vassiliou (1967) defined subjective culture as ". . . the way subjects in different cultures perceive and conceive significant aspects of their environment. A subject's 'subjective culture' is conceived to be his 'theory' of how his environment is structured. It includes his perceptions of others, his prejudices, attitudes, values, and disvalues." Triandis (1974) has suggested that differences in subjective culture often lead to ineffective and often hostile intercultural relations due to a failure to achieve "isomorphic attributions." Isomorphic attributions are defined as "similar differentiations of the significant aspects of the social situation and similar conceptions of the causes of interpersonal behavior." Effective interpersonal relations also require accurate knowledge of the way one person differs in his attributions from another, accurate expectations, similar role definitions and similar strengths in the connections between norms or roles on the one hand, and behavior on the other (Triandis, 1974).

In interpersonal relations it is not the behavior of the other (O) that is the most important determinant of the reactions of a person (P) to him, but P's conception of the causes of O's behavior. For example, if you see a mother hitting her child and you attribute it to her desire to correct his misbehavior, you will react to this woman's behavior differently than if you attribute it to her cruelty. The achievement of "isomorphic attributions" has the by-product that P attributes O's behavior to causes that are similar to the causes employed by O in explaining his own behavior. It also increases cognitive similarity and hence attraction (Byrne, 1969).

Attribution theorists have been concerned with the differences in the attributions of the actor and the observer. Typically, as reviewed by Jones and Nisbett (1972), the actor attributes his own behavior to the situation, while the observer attributes the actor's behavior to internal predispositions. In short, when O behaves, he explains the behavior on the basis of events he observes in his environment, but P explains O's behavior in terms of O's personality or other dispositions.

Discrepancies in attribution are particularly likely when P and O belong to different cultures because they are more likely to have different ways of thinking about social behavior. This is very obvious if, for example, the two cultures have a different norm and P does not know the norm of O's culture. Then O might very well attribute (correctly) his own behavior to the prevailing norm, while P might attribute it to O's personality. If P were informed of the norms in O's culture, he would be less likely to make such a mistake and hence he would also attribute O's behavior to the norm. Isomorphic attributions imply such parallelism in the causes of attributed behavior.

A direct method of achieving isomorphic attributions is to train both cultural groups to understand the subjective culture of the other. Such training is especially desirable when members of two cultural groups must interact with each other in a task-oriented situation. Fiedler, Mitchell and Triandis (1971) have developed the Culture Assimilator to meet this need. The Culture Assimilator is a method of instruction designed to sensitize individuals to cultures unfamiliar to them or of which they have little knowledge. This method uses a programmed learning format in which "critical incidents" (Flanagan, 1954) are presented to the individual trainee. Each incident describes an event which a person from the trainee's own cultural background has experienced when interacting with members of the other culture.

The event is such that members of the trainee's own culture are likely to make non-isomorphic attributions with respect to the host culture. Four alternative explanations are provided for an actor's behavior in the incident and the trainee is asked to select the most appropriate explanation. Feedback is given regarding the answers chosen by the trainee and a rationale for the appropriate choice is provided. Each incident is thus geared to providing the trainee with the information necessary to make his attributions "isomorphic" to those of the other culture.

The original purpose of the Culture Assimilator was to facilitate interaction between foreign visitors and members of a given culture. However, we have been concerned with applying this method to the black and white subcultures within the larger American culture, particularly in job settings where interactions between blacks and whites have typically produced low job satisfaction, high turnover and absenteeism among black workers. Two Culture Assimilators have been developed: One aimed at the white "first-line" supervisor who must interact effectively with members of the black subculture (Slobodin, Collins, Crayton, Feldman, Jaccard, Rissman, & Weldon, 1973) and one aimed at the black worker to sensitize him to the culture of the white worker and the "world of work" (Clay, Crayton, Rissman, Carlston, Slobodin, & Weldon, 1973).

Of major interest in this context is the degree to which the culture assimilators described above are effective in achieving the desired result--isomorphic attributions between black and white coworkers. While research on previously developed culture assimilators has shown indirect evidence for increased isomorphism in attributions, in that trained individuals show improved intergroup relationships (Fiedler et al., 1971), a more direct method of measuring the degree to which the two subcultures have moved toward

isomorphism in their attributions is desirable. The purpose of the present study was to investigate two possible methods of directly obtaining measures of causal attribution concerning behaviors committed by an actor in a "critical incident." This approach was chosen to achieve maximum transfer from the training and therefore maximal sensitivity and flexibility in detecting changes in trainees' attributions compared to a control group, a pretest session, or the attributions of members of the other subculture.

The development of the measurement methods is based on a paradigm for research on social behavior suggested by Triandis (1974). This paradigm is embodied in two fundamental equations, as follows:

$$(1) P_a = [\alpha H + \beta I](F)$$

where  $P_a$  = the act potential or the likelihood that a sequence of behaviors (act) will be performed,  $H$  = the habit of the organism to emit the act,  $I$  = the behavioral intention of the organism to commit the act,  $F$  = the facilitating conditions for the act whether situational or internal to the organism (e.g., ability), and  $\alpha$  and  $\beta$  are weights reflecting the extent to which the act is controlled by previously learned habits or by the volitional intent of the actor; and

$$(2) I = \gamma (S) + \delta (A) + \epsilon (C)$$

where  $I$  is the behavioral intention,  $S$  is the social determinant of the act such as norms, roles, or contractual arrangements made by the actor and other people,  $A$  is the affect, positive or negative, associated with performing the behavior,  $C$  is the value of the perceived consequences of the behavior, as seen by the actor, and  $\gamma$ ,  $\delta$  and  $\epsilon$  are weights reflecting the situational constraints and/or individual differences among actors that determine the relative influence of  $S$ ,  $A$  and  $C$  on the behavioral intention (for a more detailed description of these parameters and variables, see Triandis, 1974).



Achievement of isomorphic attribution by a group of subjects after training should be reflected in the weighting parameters of these two equations. That is, if training on a culture assimilator has been successful, then members of both cultures should assign similar weights to the components in each equation after observing a behavior committed by an actor from one of the cultures or after reading the same "critical incident."

#### Methodological Problems

If isomorphic attributions are to be indexed by similar weights given to the five Greek-letter symbols of the above two equations, it is necessary to obtain good estimates of these weights. This raises the question of how this is to be achieved.

A direct method is to simply ask subjects to estimate the weight of each predictor in the equations by dividing a fixed number of points among the variables in each equation (Summers, Taliafero & Fletcher, 1970). This has the advantage of having the relative weights sum to 1.00 and thus forcing subjects to use the same scaling process in their judgments. However, while this method is the most direct, it has at least three major drawbacks. They are: (1) Utilizing the equations in this way assumes that the variables (H, I, F, etc.) in the equations are constant across subjects or at least perceived as having the same value by all subjects rather than parameters that must also be estimates; (2) Evidence from the literature (Hoffman, 1960; Oskamp, 1967; Summers, et al., 1970) suggests rather strongly that a subject's self-report of his judgment policy is of limited value in reproducing his judgments; and (3) requiring that weights sum to 1.00 introduces dependency in the assignment of the weights, making analyses of the assigned weights difficult.

A second method of measurement is to have the subject estimate the perceived relationship among all possible pairs of variables in each equation. This is tantamount to asking the subject to estimate directly the correlation coefficient between all pairs of variables in the equations. This technique has been used successfully in the past by Tucker (1972) in another context; however, Smedslund (1963) has shown that subjects, in certain contexts, have some difficulty in estimating correlation coefficients. Smedslund asked subjects to estimate correlations from  $2 \times 2$  contingency tables. He found that subjects' estimates correlated poorly with the actual correlations and much higher with the cell of the  $2 \times 2$  table corresponding to the joint probability of the two items. Smedslund interpreted this as a failure by the subjects to understand the complex relationships involved in the correlation coefficient.

On the other hand, it seems that subjects should have at least a rudimentary grasp of the concept of the strength of relationship between pairs of naturally occurring events as suggested by the literature on causal attributions (Jones & Davis, 1965; Jones & Nisbett, 1972; Kelley, 1967; Weiner & Kukla, 1970). It may well be that the subjects in Smedslund's (1963) experiment were cueing on the only obvious piece of evidence indicating the strength of relationship between the items--the joint probability of both occurring--and that what they failed to grasp was not the complexities involved in a correlation between two variables, but the complexity of that relationship as expressed in a  $2 \times 2$  contingency table. Therefore, if the task of estimation can be kept simple and straightforward, such as asking the subject to indicate the strength of the relationship by circling a number between 0 and 10, the degree of error will be much smaller. This was essentially the procedure used by Tucker (1972).

The advantage of estimating subjective correlations is that it avoids most of the objections to the method of assigning subjective weights. First of all, the variables in Equations 1 and 2 are no longer treated as constants. That is, when the subject estimates the strength of the relationship between habit (H) and the behavior ( $P_a$ ), implicit in that estimate is the subject's perception that the two variables covary to a greater or lesser degree over a range of values depending on the actor and/or situation in the "critical incident."

The subjective correlations method also avoids the dependencies inherent in the estimates obtained from the subjective weights method. That is, a subject's estimate of the strength of the relationship between any two variables in the equations does not necessarily depend on his previous estimates, although it is not assumed that the estimates from the subjective correlations are entirely independent from a statistical frame of reference. Furthermore if the estimates from the subjective correlations encompass all possible pairs of variables in each equation, it is possible to directly estimate the "regression weights" for that equation for each subject. That is, the weighting parameters are recoverable from the subject's estimates of the correlations among the variables in the equations.

Finally, the question as to whether the subjective correlations estimates also fail to mirror processes actually used by the subjects (Summers et al., 1970; Hoffman, 1960; Oskamp, 1967) can only be answered empirically. It may well be that asking subjects to determine the relative weights that a series of variables has in producing the act (Equation 1) may be cognitively identical to asking the subject to estimate the strength of the relationship between the act and each variable. And if the two methods do produce different types of estimates, they may not yield similar interpretations of

the subject's attributions since either or both methods may not reflect the actual weights used by the subject.

The present study focussed primarily on these two issues by testing for discriminant validity in a multitrait-multimethod matrix which contrasted the sets of estimates obtained from each method and the "regression weights" derived from each subject's estimates from the second method.

It was predicted that, if the two methods both reflected "reality," then the first and second methods would show high discriminant validity while the "regression weight" would converge on the weights obtained from the first method. Secondly, it was predicted that if both methods were mirroring "reality," then both methods would produce similar results across differences in actors or situations. This hypothesis was tested by an analysis of variance design contrasting levels of abstraction of a disagreement occurring between a foreman and worker (role vs. value)<sup>3</sup>, race of the worker (black vs. white; the foreman was always white), order of presentation (value-role vs. role-value), and the attributions for each actor (foreman vs. worker). Finally, it was predicted, that if the second method reflects subjective correlations among the variables, then the correlation matrices produced by each subject should be internally consistent. By internally consistent, we mean that correlations between I and H, for example, should not produce negative beta weights for I and H in predicting  $P_a$ . This will happen when a hypothetical subject reports that I and H are correlated .90 while H and  $P_a$  and I and  $P_a$  are correlated .10 and .90, respectively.

#### Method

##### Subjects

The subjects were 94 undergraduates enrolled in an introductory psychology course at the University of Illinois. Their participation was part of a

course requirement. Ninety of the subjects were white males, three were white females, and one was a black male. The data from six of the above subjects were excluded from the analyses that follow because the subjects failed to answer every question.

### Stimuli

The subjects saw slides and heard tape recordings of two conversations between a worker and a foreman in a factory setting. The foreman, given the fictitious name of Jack, was always white. The worker, named George, was either white in both conversations or black in both. Jack always wore a suitcoat and tie while George always wore a t-shirt.

One conversation involved a role conflict. The worker, not wanting to do a particular job, kept suggesting that the foreman assign it to someone else (see Appendix A). The foreman insisted that George, rather than some other worker, should do it. The other conversation involved a value conflict (see Appendix B). Jack, the foreman, told George that he was being inconsiderate and was creating a health hazard by not cleaning up around his work area. George responded that dirt wasn't so bad and that even if someone tripped, he wouldn't "break anything." Each subject saw both the role conflict and value conflict conversations. These conversations were part of a larger set of dialogues developed by Triandis, Weldon, and Gwynn (1972). Across conditions, the conversations were controlled for tone, syntax, and grammar because it has been shown (Triandis, Loh, & Levin, 1966) that interpersonal attraction is influenced by grammar, as well as other factors.

The conversations were presented by means of synchronized slides and tape recordings. The first slide showed the worker and the foreman in neutral poses. The next eight slides each showed one of the two men making a statement to the other. As subjects watched the slides, they simultaneously

heard a tape recording of the statement. Subjects also received written copies of the conversation they heard.

The men seen on the slides and heard on the tape recordings were professional actors. All subjects heard the same two voices, regardless of whether the worker was black or white. The slides in the role conflict and value conflict conditions were not matched for expression or gesture. Additional details concerning the preparation of the slides and tape recordings may be found in Triandis, Weldon and Gwynn (1972).

### Responses

After viewing each conflict, subjects completed a questionnaire booklet which required them to make causal attributions concerning the behavior of the foreman and worker. The questions in the booklet inquired as to why Jack or George had made particular statements.

Although a given subject received only one question about the foreman's behavior and one about the worker's behavior, there were three questions in all about each man's actions. For example, after viewing the value conflict conversation, some subjects were asked "Why did Jack complain about the mess around George's bench?", some were asked "Why did Jack say that George only cared about himself?", and still others were asked "Why did Jack say that someone might hurt himself because of the mess around George's bench?". The complete list of twelve questions, three for each of the two men for both the role and value conflicts, may be found in Appendix C. The purpose of asking three questions about each man was to increase the universe of behaviors to which any findings could be generalized. Three questionnaire booklets were used. One booklet used questions 1, 4, 7 and 10 from the list in Appendix C. A second booklet used questions 2, 5, 8 and 11, and a third booklet used questions 3, 6, 9 and 12.

For each conversation, the question about the foreman always preceded the question about the worker. Responses to each question were measured by two methods. The first method asked subjects to provide subjective weights, while the second method asked for subjective correlations.

Subjective weights. Subjects were first asked to indicate the relative influence of habit (H) and behavioral intentions (I) on performance of an act (see Equation 1). Subjects were told they had 10 points to divide between the two explanations of the factor person's behavior. The more important they thought one explanation was, relative to the other, the more points they were to assign it. (See Appendix D for the complete instructions.) For a given question (e.g., "Why did Jack say it was George's turn to do the job?"), there were thus two explanations. The habit explanation was "He did not even think about it. He always acts that way in situations like this." The behavioral intention explanation was "He thought about it and did it intentionally."

If subjects assigned one or more points to the behavioral intention explanation (which occurred with about a 95 per cent frequency), then subjects were instructed to "branch" to a question on the cause of the behavioral intention. Subjects were then asked, for example, "Why did Jack think about it and intentionally say it was George's turn to do the job?". The three alternative explanations for the intention corresponded to the three predictor variables of Equation 2: social (S), affect (A), and perceived consequences (C). The social explanation was "Jack thinks that other people (who are important to him) think this is the correct way for him to behave." The affect explanation was "This kind of act makes Jack feel good." Finally, the perceived consequences explanation was "Jack thinks that this kind of act will get him desired goals." Subjects indicated the relative importance of these three explanations by allocating a portion of 10 points to each explanation.

Subjective correlations. Subjects indicated "how related" they thought two "events" or variables were on an eleven point scale which ranged from "unrelated" (0) to "strongly related" (10). It was explained (see Instructions Booklet, Appendix D) that "two events are related if, when one happens, the other one is also likely to happen."

For each question (e.g., "Why did George complain about doing the job?"), subjects were asked to indicate the degree of correlation between nine pairs of variables. Three of the pairs of variables were based on all combinations of three variables in Equation 1: Act or  $P_a$  (e.g., "George's doing this"), behavioral intention ("George's intention to do this"), and habit ("George's doing this without even thinking about it, because he always acts that way"). For example, the wording for the Act-Behavioral Intention correlation was:

George's doing this is

0	1	2	3	4	5	6	7	8	9	10
unrelated			slightly related		moderately related					strongly related

to George's intention to do this

Six other correlations were based on all combinations of the four variables in Equation 2. The four variables were behavioral intention (e.g., "George's intention to do this), affect ("George's feeling good when he does this"), social influence ("George's belief that others important to him think that it is correct for him to do this"), and perceived consequences ("George's belief that doing this will get him desired goals"). In estimating these six correlations, subjects were asked to assume that the action was at least partly intentional. From the nine subjective correlations described above, one can calculate the beta weights for Equations 1 and 2. A complete set of the nine subjective correlations may be found in Appendix E.



### Design

A  $2 \times 2 \times 3 \times 2 \times 2$  factorial design was used with race of worker (black or white), order of conversations (role conflict or value conflict conversation first), and type of questionnaire booklet as the between groups variables. The repeated measures variables were person about whom attributions were made (foreman or worker) and level of conflict (role or value). The dependent variables were the subjective weights and the subjective correlations. There were from five to eleven subjects in each of the twelve between groups cells.

### Procedure

The study was conducted in five sessions, with from 13 to 29 subjects per session. In each session, the experimenters were two white males (the first and second authors). After the roll was called, subjects read the instructions booklet (Appendix D). The instructions concerning branching (which page to go to after completing a given page) were repeated orally and subjects were given an opportunity to ask questions. A slide-tape presentation of the first conversation was then shown. In three sessions, the value conflict conversation was presented first and in two sessions the role conflict conversation was shown first. After the presentation, subjects were told: "You will now be asked some questions about the actions of Jack and George in the scene you just saw. To help you answer these questions we have given you a copy of the conversation you just heard."

After completing the questions about the first conversation, subjects saw and heard the second conversation between the same two people. Subjects then answered the questions about the second conversation. After all the subjects had finished, they were handed a debriefing sheet (Appendix F), given a chance to ask questions, thanked and dismissed.

## Results

The responses of the 88 subjects who had complete data were combined across all levels of the design to test for discriminant and convergent validity in the multitrait-multimethod matrix and to test for internal consistency in the subjects' report of subjective correlations among the variables in Equations 1 and 2. Finally, the subjective weights and subjective correlations were examined through analysis of variance to test for differential sensitivity to situational and idiographic factors. The results for each of these tests are described below.

### Internal Consistency

The subjective correlations given by each subject for each of the four situations<sup>4</sup> were placed into two separate correlation matrices corresponding to Equations 1 and 2. The beta weights were then computed using regression analysis. These computed weights were then inspected for internal consistency under the following criterion: If one or more of the beta weights was less than  $-.50$ , then that subject's entire set of beta weights from the four situations was determined to be inconsistent<sup>5</sup>. Using this criterion, 29 of the 88 (33%) subjects were inconsistent in at least one of the four situations. In most cases, if the subject was inconsistent in one situation, he was inconsistent across all situations. Only eight of the 29 inconsistent subjects were inconsistent in only one or two situations of the experiment and consistent in the others. Finally, not only was the number of inconsistent subjects relatively high, but if a subject was inconsistent the negative beta weights were quite large, ranging from  $-.50$  to  $-.67.37$ .

As an example of a set of inconsistent subjective correlations, a subject might have stated that the Act-Intention correlation was  $.90$ , the Act-Habit correlation was  $.10$ , and the Intention-Habit correlation was  $.90$ .

Given that Intention has a much higher correlation with the criterion (Act) than Habit, it is inconsistent for the subject to contend that Act and Habit are themselves very highly correlated. The result would be a very large negative beta weight for Habit. This example illustrates that the inconsistent judgments were the result of difficulties in estimating the correlations among the predictor variables.

This evidence casts some doubt on the subjects ability to estimate subjective correlations that are internally consistent. There is, however, an alternative explanation that cannot be ignored. It was extremely difficult to word the instructions for the relative weights task and the subjective correlation estimation task such that the two types of judgments were conceptually distinct for the subjects. This plus the fact that the relative weights task always preceded the subjective correlation estimation task may have introduced strong demand characteristics (Orne, 1962) into the experiment. That is, subjects may have interpreted the subjective correlations task as an alternate form of the relative weights tasks (and thus a reliability check) and made a conscious effort to equate the two sets of judgments in order to be consistent in their attributions.

#### Discriminant and Convergent Validation

To test the ability of the subjects to discriminate between the relative weights estimation task and the subjective correlations estimation task, a multitrait-multimethod matrix was constructed. Five traits and three methods were compared for the consistent and inconsistent subjects. The results are presented in Table 1 for the consistent subjects and Table 2 for the inconsistent subjects.

The five "traits" were the two perceived relations between the actor's previous habits and his act and the actor's behavioral intention and his act

Table 1

Multitrait-Multimethod Matrix for Consistent Subjects Showing 5 Traits and 3 Methods (N = 236)

	Method 1					Method 2					Method 3				
	Relative Weights					Subjective Correlations					Computed Regression Weights				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Habit	(.72)														
2. Behavioral Intention		-1.0 (.62)													
3. Social Determinant			-.08 .08 (.49)												
4. Affect				.06 -.06 -.28 (.58)											
5. Perceived Consequences					.33 -.43 -.46 (.78)										
6. Act-Habit						.71 -.71 .01 .20 -.33 (.99)									
7. Act-Intention							-.56 .56 -.04 -.24 .29								
8. Intention-Social determinant								.10 -.10 .43 -.25 -.28							
9. Intention-Affect									.17 -.17 -.17 .45 -.30						
10. Intention-Perceived Consequences										.20 -.19 -.24 (.78)					
											-.23 .29 -.10 -.10 -.10 (.91)				

Table 1 (Continued)

	Method 1					Method 2					Method 3				
	Relative Weights					Subjective Correlations					Computed Regression Weights				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
11. Habit-Regression Weight	.64	-.64	-.02	.13	-.24	.88	-.59	.13	.11	-.13	(.89)				
12. Behavioral Intention Regression Weight	-.64	.64	-.02	-.26	.33	-.67	.90	-.24	-.21	.32	-.74	(1.00)			
13. Social Determinant Regression Weight	.03	-.03	.38	-.10	-.27	.01	-.22	.67	-.04	-.27	.09	-.21	(.76)		
14. Affect Regression Weight	.17	-.17	-.09	.47	-.36	.22	-.03	.00	.63	-.34	.13	-.20	-.27	(.81)	
15. Perceived Consequences Regression Weight	-.21	.21	-.32	-.36	.69	-.29	.21	-.31	-.32	.80	-.16	.28	-.42	-.58	(.88)

NOTE: Reliabilities are lower bounds based on solution of three simultaneous equations using validity coefficients to solve.

Table 2

Multitrait-Multimethod Matrix for Inconsistent Subjects Showing 5 Traits and 3 Methods (N = 116)

	Method 1					Method 2					Method 3				
	Relative Weights					Subjective Correlations					Computed Regression Weights				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Habit	(.72)														
2. Behavioral Intention	-1.0	(.62)													
3. Norm	-.15	.15	(.49)												
4. Affect	.01	-.01	-.21	(.58)											
5. Pc-Vc	-.38	.38	-.33	-.49	(.78)										
6. Act-Habit	.66	-.66	.04	.16	-.47	(.99)									
7. Act-Behavioral Intention	-.63	.63	.03	-.03	.36	-.53	(.89)								
8. Behavioral Intention-Norm	.25	-.06	.50	-.23	-.22	.08	-.11	(.87)							
9. Behavioral Intention-Affect	.06	-.25	-.09	.45	-.39	.25	-.12	.12	(.78)						
10. Behavioral Intention-Pc Vc	-.22	.22	-.14	-.46	.62	-.38	.37	.04	-.20	(.91)					

Table 2 (Continued)

	Method 1					Method 2					Method 3				
	Relative Weights					Subjective Correlations					Computed Regression Weights				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
11. Habit Weight	.28	-.28	.00	.02	-.23	.32	-.34	.20	.12	-.16	(.89)				
12. Behavioral Intention Weight	-.30	.30	.00	.01	.24	-.32	.38	-.21	-.13	.18	-.98	(1.00)			
13. Norm Weight	.04	-.04	.04	.04	-.06	.10	.07	.01	-.01	-.08	.02	-.03	(.76)		
14. Affect Weight	.04	-.04	.13	.11	-.22	.01	.02	.12	.29	-.08	.02	-.02	-.11	(.81)	
15. Pc - Vc Weight	-.05	.05	-.11	-.08	.16	-.09	.07	-.05	-.10	.11	-.03	.03	-.90	-.30	(.88)

NOTE: Reliabilities are lower bounds based on solutions of three simultaneous equations using validity coefficients of consistent Ss to solve.

(Equation 1) and the effects of social normative constraints, affect toward the act, and the perceived consequences of the act on the behavioral intention (Equation 2). The three methods were estimations of these effects (1) by assignment of relative subjective weights, (2) from the perceived correlations, and (3) by computing regression weights from the estimates given by method two.

It was predicted that if methods 1 and 2 accurately reflected reality then the subjective estimates of relative weights and subjective estimates of correlations would have only moderate validity coefficients while the computed regression weights (method 3) would converge on the relative weights (method 1) and thus have high validity coefficients. We shall consider the consistent subjects first (Table 1) and then the inconsistent subjects.

According to the four criteria outlined by Campbell and Fiske (1959), the consistent subjects indicated a high degree of convergent and discriminant validity. First of all, the validity coefficients were all high and significantly different from zero. Secondly, with the exception of the correlation between estimated influence of behavioral intentions and habit across all methods, the validity coefficients were much higher than their row and column values in the heterotrait-heteromethod triangles. The third criterion that the validity coefficients be higher than the correlations in the monomethod-heterotrait triangles has also been met, again with the exception of behavioral intention and habit. Finally, the desideratum that the same pattern of trait interrelationships be shown in all of the heterotrait triangles of the monomethod and heteromethod blocks has been met with the exception of the subjective correlations estimation task's (method 2) monomethod block. However, this one failure provides the first and only



evidence that the subjective correlations estimation task differs from both the relative weights task and the computed regression weights.

The expected difference in validity coefficients was not found. In fact, the validity coefficients between the relative weights task and the subjective correlations task and between the computed regression weights and subjective correlations task are both higher than those between the relative weights and computed regression weights. With the possible exception noted above under the fourth criterion, the most consistent explanation of the data is that strong demand characteristics (to appear highly consistent) were operating in the experiment and/or most of the subjects were not successfully discriminating between the response requirements of the relative weights task and the subjective correlations estimation task.

An unexpected finding in Table 1 was the extraordinarily high validity coefficients between the subjective correlations task and the computed regression weights. This finding has implications for understanding the data for the inconsistent subjects and is discussed below.

For the inconsistent subjects (Table 2), the pattern of the multi-trait-multimethod matrix is very similar to the pattern for the consistent subjects for the relative weights task (method 1) and the subjective correlations task only. The validity coefficients are comparable, as are the monomethod and heteromethod trait patterns for these two tasks. This strongly suggests that the two groups of subjects did not differ in their reactions to the response requirements of the two tasks and supports a demand characteristics explanation of the higher validity coefficients between the subjective correlations task and the relative weights task.

It is clear that the explanation of the internal inconsistency of 33% of the subjects' estimates of subjective correlations cannot be found in the multitrait-multimethod matrices for the two groups of subjects. The finding that the consistent subjects had extremely high validity coefficients between their estimates of subjective correlation and computed regression weights does offer a clue. This result could only occur if these subjects reported near-zero correlations between the predictor variables of Equations 1 and 2. On the other hand, internal inconsistency would be much more likely with strong demand characteristics between the two estimation tasks and estimations of the correlations between the predictor variables near unity. That this was, in fact, the case is shown in Table 3 which gives the mean subjective intercorrelations among the predictors and criterion for both the consistent and inconsistent subjects. Inconsistent subjects without exception perceived higher mean correlations among the predictors than did consistent subjects. This difference, plus the tendency to report higher correlations for some predictor-criterion relationships than for others, caused the internal inconsistency.

The differential mean correlations of the inconsistent subjects suggest that subjects may differ in the degree of complexity of their attributions. The inconsistent subjects perceived the predictors as very highly related which may imply that they perceive the predictors as alternative measures of the same underlying construct. On the other hand, the consistent subjects had much lower relationships among the predictors implying that there is more cognitive differentiation of the predictor variables. This finding, however, should not be construed as an explanation for the internal inconsistency alone, but in conjunction with the demand characteristics provides a rationale for the observed outcomes.

Table 3

Means for Consistent and Inconsistent Subjects on Subjective Correlation  
Estimates Among the Variables of Equations 1 and 2

Part A. Internally Consistent Subjects

	<u>1</u>	<u>2</u>		<u>1</u>	<u>2</u>	<u>3</u>
1. H			1. S			
2. I	.33		2. A	.27		
3. P <sub>A</sub>	.48	.67	3. C	.40	.51	
Mean Weights Obtained from Individuals	.33	.54	4. I	.46	.44	.60
			Mean Weights Obtained from Individuals	.25	.16	.42

Part B. Internally Inconsistent Subjects

	<u>1</u>	<u>2</u>		<u>1</u>	<u>2</u>	<u>3</u>
1. H			1. S			
2. I	.44		2. A	.53		
3. P <sub>A</sub>	.49	.66	3. C	.67	.71	
Mean Weights Obtained from Individuals	.34	.47	4. I	.54	.46	.64
			Mean Weights Obtained from Individuals	.05	-.97	1.13

NOTES: The abbreviated variables are: P<sub>A</sub> = Probability of the act, H = Habit, I = Behavioral intention, S = Social determinants, A = Affect and C = Value of the perceived consequences. The means are based on Ns of 236 and 116 for consistent and inconsistent subjects, respectively.

### Analyses of Variance

With the subjective relative weights method, the dependent variables are not independent of each other. For instance, the weight assigned to behavioral intention completely determines the weight assigned to habit. Therefore, the analysis of variance summary tables for these two dependent variables would be identical. Hence, only the significant effects for one of the variables (behavioral intentions) will be presented. The relative weights assigned to the social determinant, affect, and perceived consequences are also interdependent. The weights assigned to any two of these three variables completely determine the weight assigned to the third. With three interdependent variables, the summary tables will not be identical and there is no a priori way to determine which of the three dependent variables to ignore. Hence, the findings for all three dependent variables are reported. The above problem does not exist with the subjective correlations method since theoretically no dependent variable is constrained by the level of any other dependent variable. This assumption, however, must be tempered by the previously noted effects of demand characteristics. Results of analyses of variance on the following five subjective correlations are reported: Act-Behavioral Intention, Act-Habit, Intention-Perceived Consequences, Intention-Social Determinant, and Intention-Affect.

A  $2 \times 2 \times 3 \times 2 \times 2$  analysis of variance (race of worker  $\times$  order of conversations  $\times$  type of questionnaire booklet  $\times$  attributions about foreman or worker  $\times$  role vs. value conflict) was performed on each of the above mentioned dependent variables. The summary table for each dependent variable included 35 sources of variation. The significant main effects and interactions from these analyses are shown in Tables 4, 5, 6 and 7. With 35 sources of variation we felt compelled to ignore effects which did not reach the .01 level of significance unless they have occurred for both methods.

Table 4

Significant Analysis of Variance Effects for the Relative  
Subjective Weights and Subjective Correlation Methods of  
Measuring Behavioral Intentions and Habits

<u>Source</u>	<u>df</u>	<u>Relative</u> <u>Weights</u>	<u>Subjective Correlations</u>	
		<u>Behavioral</u> <u>Intention</u>	<u>Act-</u> <u>Intention</u>	<u>Act-</u> <u>Habit</u>
		<u>F-ratio</u>	<u>F-ratio</u>	<u>F-ratio</u>
Foreman vs. Worker	1/76	24.44***	9.16**	24.91***
Role vs. Value Conflict	1/76	65.35***	20.60***	46.95***
Order of Conversation x Role vs. Value	1/76	12.09***	2.12	<1
Order x Foreman vs. Worker x Role vs. Value	1/76	2.29	9.02**	3.30

\*\*p < .01

\*\*\*p < .001

Table 5

Significant Analysis of Variance Effects for the Relative Subjective Weights  
and Subjective Correlations Methods of Measuring Perceived Consequences (C)

<u>Source</u>	<u>df</u>	<u>Relative</u> <u>Weights</u>	<u>Subjective</u> <u>Correlations</u>
		<u>Perceived</u> <u>Consequences</u>	<u>I-Consequences</u>
		<u>F-ratio</u>	<u>F-ratio</u>
Race of Worker	1/76	5.14*	6.07*
Foreman vs Worker	1/76	2.09	8.72**
Role vs Value Conflict	1/76	30.60***	22.15***

\*p < .05

\*\*p < .01

\*\*\*p < .001

Table 6

Significant Analysis of Variance Effects for the Relative Subjective Weights  
and Subjective Correlations Methods of Measuring Social Determinants (S)

<u>Source</u>	<u>df</u>	<u>Relative</u> <u>Weights</u>	<u>Subjective</u> <u>Correlations</u>
		<u>Social</u>	<u>I-Social</u>
		<u>F-ratio</u>	<u>F-ratio</u>
Foreman vs. Worker	1/76	46.28***	64.93***
Order x Booklet x Foreman vs. Worker	2/76	1.46	6.30**
Booklet x Foreman vs. Worker x Roles vs. Values	2/76	3.73*	6.17**

\*p < .05

\*\*p < .01

\*\*\*p < .001

Table 7

Significant Analysis of Variance Effects for the Relative Subjective  
Weights and Subjective Correlations Methods of Measuring Affect (A)

<u>Source</u>	<u>df</u>	<u>Relative</u> <u>Weights</u>	<u>Subjective</u> <u>Correlations</u>
		<u>Affect</u>	<u>I-Affect</u>
		<u>F-ratio</u>	<u>F-ratio</u>
Race of Worker	1/76	7.07**	2.22
Foreman vs. Worker	1/76	20.23***	9.95**
Race of Worker x Foreman vs. Worker	1/76	8.90**	3.67
Role vs. Value Conflict	1/76	10.14**	<1

\*\*p < .01

\*\*\*p < .001



Variables which significantly influenced the extent to which behavior was attributed to intentions and/or to habits are shown in Table 4. The three dependent variables in Table 4 are behavioral intention as measured by the relative weights method, the Act-Intention subjective correlation and the Act-Habit subjective correlation. For all three dependent variables, the largest F-ratios were for the foreman vs. worker main effect and the role vs. value main effect.

With the relative weights method, intentions were seen as having a greater influence on the foreman's behavior (6.92 points out of 10) than on the worker's behavior (5.23). By the nature of the relative weights method, it must also be the case that habits were seen as having less influence on the foreman's behavior (3.08) than on the worker's (4.77). With the subjective correlations method, the connection between intention and act was seen as slightly greater for the foreman (.70) than for the worker (.62). On the other hand, the connection between habit and behavior was seen as considerably less for the foreman (.42) than for the worker (.58). Thus, from the subjective correlations method, it appears that the big difference between foreman and worker was that the worker was seen as much more influenced by habits. The worker was seen as only slightly less influenced by intentions than was the foreman. This conclusion could not have been drawn from the relative weights method since with that method, a report of increased influence from one variable must lead to an indication of decreased influence from other variables.

On the role vs. value conflict main effect, both methods indicated that intentions had more influence (and habits less) in the role conflict conversation than in the value conflict conversation. The relative weights method revealed an interaction between order of conversation and type of

conversation (role vs. value). This Order x Role-Value interaction was not significant with the subjective correlations method. Instead, the interaction appeared to be of a higher order (see Table 4). With the Act-Intention subjective correlation, there was a significant Order x Foreman-Worker x Role-Value interaction, indicating that the Order x Role-Value interaction held only for the foreman.

Independent variables which affected the attributed influence of perceived consequences, the social determinant and affect are shown in Tables 5, 6 and 7, respectively. One potent independent variable was role vs. value conflict. Both methods of measuring perceived consequences yielded a highly significant main effect for role vs. value conflict (see Table 5). The behavior of the actors was seen as much more under the influence of perceived consequences in the role conversation than in the value conversation. The role conflict was thus seen as more rational-involving people trying to obtain desired ends. In Table 7, according to the relative weights method, intentions in the role conversation were significantly less influenced by affect than were intentions in the value conversation. The subjective correlations method, on the other hand, indicated no significant difference between the role and value conflicts on the subjective BI-Affect correlation (see Table 7). Therefore, the significant role-value main effect for affect, as measured by relative weights, may have been an artifact of the significant role-value main effect for perceived consequences.

Another potent independent variable was the attributions made about the foreman vs. the attributions made about the worker. According to both methods (Table 6), the foreman's intentions were much more influenced by social determinants than were the worker's intentions. That is, the foreman was seen as acting as he did more because others expected it of him than was

the worker. Both methods also indicated that the foreman was significantly less influenced by affect than the worker. The subjective correlations method also indicated that the foreman was seen as more influenced by perceived consequences than was the worker. This main effect was not significant for the relative weights method, however.

The only other effect that was significant for both methods was a race of worker main effect on the perceived consequences dependent variable (see Table 5). Disagreements between a black worker and a white foreman were seen more as attempts by both sides to obtain desired goals than were disagreements between a white worker and a white foreman. This finding is in line with the observation by Triandis, Weldon and Gwynn (1972) that disagreements between two whites are often seen as implying more negative interpersonal perceptions than the same disagreement between a black and a white.

A comparison of the relative weights and the subjective correlations methods revealed that, with just one exception, sources of variation which were highly significant ( $p < .001$ ) according to one method were also significant according to the other method. However, a number of the weaker effects, including many higher order interactions, were significant according to only one of the two methods. If we were to pay attention to  $p < .05$ , we would conclude that ten sources were significant only with the relative weights method and six sources were significant only with the subjective correlations method.

The relative weights method thus appeared to be slightly more sensitive to differences in the independent variables. However, this small advantage may very well have been artifactual since the dependent variables were interdependent when the relative weights method was used. Hence, if an effect was significant on one dependent variable (e.g., the social determinant),

then the same effect must have been significant on at least one of the other dependent variables (affect or perceived consequences).

In summary, there was little difference between the two methods in terms of sensitivity. The subjective correlations method did have the advantage of dependent variables that were not interdependent. It was, therefore, possible to make more unambiguous interpretations of the data with the subjective correlations method.

#### Discussion and Conclusions

Both methods of measurement provided satisfactory data. Specifically, 59 subjects met the criterion of internal consistency and provided Campbell-Fiske multitrait-multimethod matrices that met all criteria. The remaining 29 subjects provided data that were less satisfactory, but useable.

The major difference between the consistent and the inconsistent subjects was that the inconsistent had an undifferentiated conception of the causes of social behavior, i.e., they did not use the components of the model, but assumed that the independent variables of the model are highly correlated. The consistent subjects, who constituted two-thirds of the sample, used all components of the model with the exception of the A component.

The correlations among the components of the model are relatively large and highly significant. The multiple correlation for predicting Behavior from Habits and Intentions is .71. The multiple correlation for predicting Intentions from the Social and the Consequences components is .65. If the Affect component is added the multiple correlation becomes .66. Hence, there is no evidence that subjects can use all three components (S,A,C) independently, since the contribution to "variance accounted for" by the Affect component is essentially zero.

The comparison of the two methods of measurement suggests that they give comparable results. Since the subjective correlation method has the advantage that the attributions are obtained without artifactual dependencies among the scores, we conclude that the subjective correlation method should be used in future research.

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### Footnotes

1. This investigation was supported by Research Grant No. 15-P-55175/5 from the Social and Rehabilitation Service of the Department of Health, Education and Welfare (H. C. Triandis, Principal Investigator).
2. Now at Washington University, St. Louis, Missouri.
3. Triandis, Feldman and Weldon (in press) have shown that the level of abstraction of a disagreement is a powerful determinant of the evaluation, potency, activity and behavioral intentions of actors toward one another; as perceived by subjects.
4. Since each subject was repeated in two factors of the design, there were four sets of subjective correlation estimates. The decision was made to consider each set as an independent correlation matrix since the constructed situations were known to produce differential effects on attributions (Triandis, Weldon & Gwynn, 1972; Triandis, Feldman & Weldon, 1974).
5. Since data for the estimates of subjective correlations was taken from category scales, errors in measurement could account for most of the low negative beta weights, thus a criterion of anything less than zero was considered too punitive.

APPENDIX A  
ROLE CONFLICT CONVERSATION

George: How come I have to do this job, Jack?

Jack: Cause you haven't done it in a long time.

George: Lots of the other guys haven't done it for a long time either.

Jack: Well, somebody's gotta do it, George, and this time it's your turn.

George: What about Alex? He hasn't done it for years.

Jack: Alex is busy doin' something else.

George: Well what about Dave? He's just sittin' on his ass today.

Jack: No, he's not, George. He's got another job lined up for today and you don't.

APPENDIX B  
VALUE CONFLICT CONVERSATION

Jack: God, George, what a mess around your bench. I can't stand to look at it.

George: Come off it, Jack. A little dirt never hurt anybody.

Jack: I know dirt won't kill you, but it looks terrible.

George: I'm not here to be a janitor; I'm here to do my own job.

Jack: Yeah, but somebody might trip over this junk and break something, too.

George: People aren't made of glass. If they trip, they aren't gonna break anything.

Jack: You don't care about anybody but yourself, do you George?

George: Ah, Jack, get off my back!

## APPENDIX C

### QUESTIONS ABOUT ACTIONS OF WORKER AND FOREMAN FOR EACH CONVERSATION

#### Roles--Jack (Foreman)

1. Why did Jack say it was George's turn to do the job?
2. Why did Jack say that Dave had another job to do?
3. Why did Jack insist that George do the job?

#### Roles--George (Worker)

4. Why did George complain about doing the job?
5. Why did George ask why he had to do the job?
6. Why did George suggest that Alex or Dave should do the job?

#### Values--Jack (Foreman)

7. Why did Jack say that someone might hurt himself because of the "mess" around George's bench?
8. Why did Jack complain about the "mess" around George's bench?
9. Why did Jack say that George only cared about himself?

#### Values--George (Worker)

10. Why did George tell Jack to get off his back?
11. Why did George say that no one would "break anything" if they tripped?
12. Why did George say that a little dirt never hurt anybody?

NOTE: Questionnaire booklet one contained questions 1, 4, 7 and 10 above.

Questionnaire booklet two contained questions 2, 5, 8 and 11.

Questionnaire booklet three contained questions 3, 6, 9 and 12.

## APPENDIX D

### INSTRUCTIONS

We would like to have your ideas about what makes people act in certain ways. You will see and hear several scenes involving two people. We want you to tell us what, in your opinion, made these people act the way they did.

For example, suppose that George and Jack are workers in the same factory. George accidentally dropped his wrench and Jack picked it up for George. We might then ask the following question:

1. Why did Jack pick up the wrench for George?

A. He did not even think about it. He always acts that way in situations like this.

B. He thought about it and did it intentionally.

10

A and B are possible explanations of Jack's actions. We want you to tell us how important you think A and B were in influencing Jack to pick up the wrench. You will have 10 points to divide between A and B. The more important you think A was, as compared to B, the more points you should give to A. You may give all 10 points to A and zero to B or whatever other division you think best shows the relative importance of the two explanations. Remember that the points given to A plus the points given to B must add up to 10 points. There are no right or wrong answers. This is not a test. We are only interested in your honest opinions.

If you happened to believe that A and B were both important in influencing Jack to pick up the wrench for George but that A was slightly more important than B, you might divide the 10 points as follows:

Section I

Why did Jack pick up the wrench for George?

A. He did not even think about it. He always  
acts that way in situations like this.

6

B. He thought about it and did it in-  
tentionally.

4

10

If you gave one or more points to part A above, go to Page 2.

If you gave no points to part A above, go to Page 3.

(Since 6 points were given to part A in the example above, please go  
to Page 2 now.)

## Section II

You gave one or more points to Part A of Section I. Thus, you believe that Jack acted, at least to some extent, without thinking about it; he always acts that way in situations like this.

Why did Jack pick up the wrench for George without even thinking about it?

A. Jack did it without thinking about it because, in the past, this type of action has been rewarded frequently in the social environment in which he has lived.

2

B. Jack did it without thinking about it because he is that kind of person.

8

10

(If you had divided the 10 points as shown in the above example, it would mean that you thought that part B was much more important than part A in influencing Jack. That is, the above division indicates that you thought that Jack picked up the wrench for George without even thinking about it mostly because "he is that kind of person" [part B] and only slightly because of past rewards for doing so, [part A].)

Turn back to Page 1 for a moment to see how many points you assigned to part B in Section I.

If you gave one or more points to Part B in Section I, go to Page 3.

If you gave no points to Part B in Section I, go to Page 5.

(Since, in this example, 4 points were given to Part B of Section I, please go to Page 3 now.)

## Section III

You gave one or more points to Part B of Section I. Thus, you believe that Jack acted, at least to some extent, after thinking about it; he intended to do it.

Why did Jack think about and intentionally pick up the wrench for George?

- |  |          |
|--|----------|
| A. Jack thinks that other people (who are important to him) think this is the correct way for him to behave. | <u>3</u> |
| B. This kind of act makes Jack "feel good."  | <u>6</u> |
| C. Jack thinks that this kind of act will get him his desired goals.   | <u>1</u> |
|  | 10       |

If you gave one or more points to Part A above, go to Page 4.

If you gave no points to Part A above, go to Page 5.

(Since, in this example, 3 points were given to Part A above, please go to Page 4 now.)



## Section IV

You gave one or more points to Part A of Section III. Thus, you believe that Jack acted, at least to some extent, because he thinks that other people (who are important to him) think this is the correct way for him to behave.

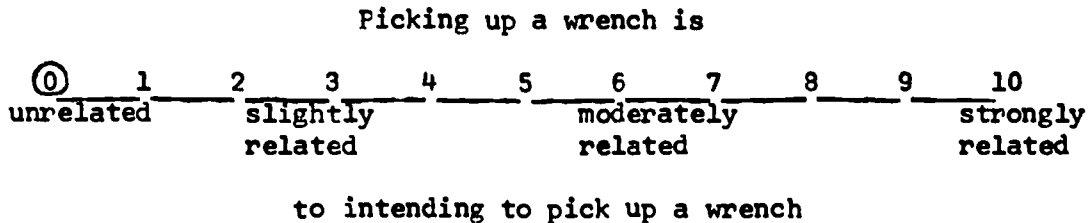
Which people important to Jack are influencing him to pick up the wrench for George?

- |  |          |
|--|----------|
| A. Jack's fellow workers think he should act this way.                           | <u>5</u> |
| B. Jack's closest friends think that he should act this way in his social group. | <u>3</u> |
| C. He had agreed with the people he works for that he should act this way.       | <u>2</u> |
|  | 10       |

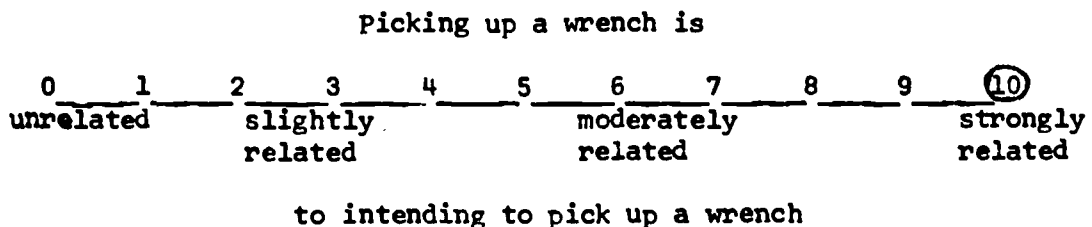
(If you had divided the points as shown in the example above, it would mean that you thought that Jack was most influenced by what his fellow workers thought [A], next most influenced by what his closest friends thought [B], and least influenced by any agreements with the people he works for [C].)

Go to Page 5.

We will also be asking you a second set of questions about each scene that you see. We would like you to tell us how related you think two events are by circling a number from 0 to 10. Two events are related if, when one happens, the other one is also likely to happen. For example, we might ask you to indicate how related "picking up a wrench" is with "intending to pick up a wrench." If you thought that the first event was unrelated or not related at all to the second event, then you would circle the number "0". If you thought that "picking up a wrench" and "intending to pick up a wrench" were unrelated, then you would place your mark as follows:



If you thought that the two events were strongly related, however, then you should circle the number "10". For example, if you thought that anyone who picked up a wrench was very likely to have intended to "pick up a wrench" so that those two events were strongly related, then you would place your mark as follows:



The numbers between 0 and 10 represent different strenghts of relationship between the two events. The more strongly you see the events as being related, the larger the number you should circle. For example, circling the number 3 means that you see the events as being slightly related. Circling the number 4 means you see a somewhat stronger relationship between the two events, the number 5 means a still stronger relationship, and so on up to 10, which means you see the events as being strongly related.

## APPENDIX E

Why did Jack complain about the "mess" around George's bench?

Jack's doing this is

0 1 2 3 4 5 6 7 8 9 10  
unrelated slightly related moderately related strongly related

to Jack's intention to do this

Jack's doing this is

0 1 2 3 4 5 6 7 8 9 10  
unrelated slightly related moderately related strongly related

to Jack's doing this without even thinking about  
it, because he always acts that way

Jack's intention to do this is

0 1 2 3 4 5 6 7 8 9 10  
unrelated slightly related moderately related strongly related

to Jack's doing this without even thinking about  
it, because he always acts that way

PLEASE ASSUME NOW THAT JACK DID THIS, AT LEAST IN PART, BECAUSE HE INTENDED  
TO DO IT.

Jack's intention to do this is

0 1 2 3 4 5 6 7 8 9 10  
unrelated slightly related moderately related strongly related

to Jack's feeling good when he does this

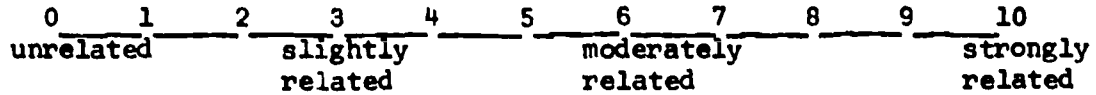
Jack's intention to do this is

0 1 2 3 4 5 6 7 8 9 10  
unrelated slightly related moderately related strongly related

to Jack's belief that others important to him think  
that it is correct for him to do this

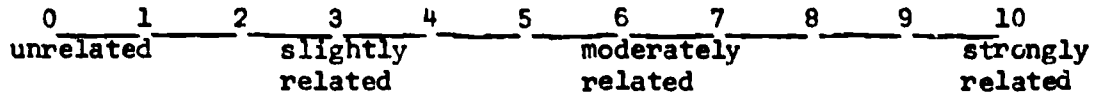
Why did Jack complain about the "mess" around George's bench?

Jack's intention to do this is



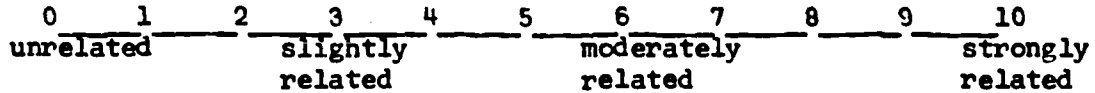
to Jack's belief that doing this  
will get him desired goals

Jack's feeling good when he does this is



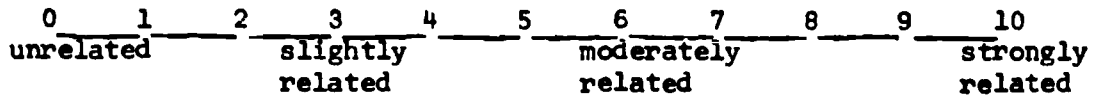
to Jack's belief that others important to him  
think that it is correct for him to do this

Jack's feeling good when he does this is



to Jack's belief that doing this  
will get him desired goals

Jack's belief that others important to him think  
that it is correct for him to do this is



to Jack's belief that doing this  
will get him desired goals

## APPENDIX F

The questionnaire you completed will assist a research program being conducted by Dr. Harry C. Triandis and associates. The general goal of this research is to improve black-white relations in work settings. The specific goal of this study is to help us learn more about what people see as the causes of conflict in work settings. Previous research has suggested that people from different cultures view things differently. These different perspectives may be a source of misunderstandings and conflict between blacks and whites. Using information obtained from earlier studies, the Triandis group has created a training program ("cultural assimilator") designed to teach both racial groups about the viewpoints of the other. It is hoped that this training will reduce misunderstandings, and thus eliminate some of the problems which have beset newly integrated companies.

Thank you for your help and cooperation. If you are interested in this line of research, you might read:

- Fiedler, F. E., Mitchell, T., & Triandis, H. C. The culture assimilator: An approach to cross-cultural training. Journal of Applied Psychology, 1971, 55, No. 2, 95-102.
- Triandis, H. C., & Malpass, R. S. Studies of black and white interaction in job settings. Journal of Applied Social Psychology, 1971, 1, 2, 101-117.